

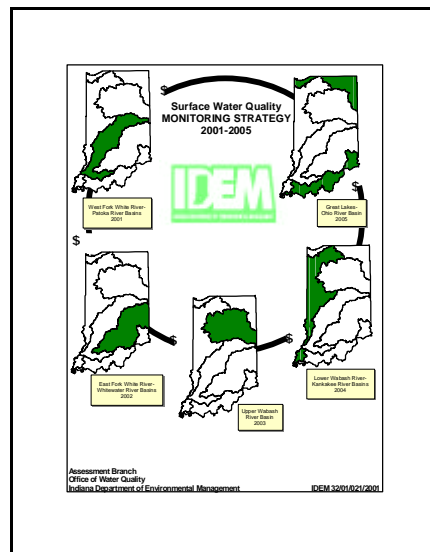
## IDEM's Surface Water Quality Assessment Program

### Surface Water Quality Monitoring Strategy

#### Program Objective

The purpose of Office of Water Quality's (OWQ) Surface Water Quality Monitoring Strategy (the *Strategy*) is to direct the assessment of the quality of surface waters of Indiana's rivers, streams, and lakes for designated water uses. The strategy is designed to provide technical data and information in support of the biennial 305(b) Water Quality Report, National Pollutant Discharge Elimination System (NPDES) permitting program, and the annual Fish Consumption Advisory. In addition, the implemented strategy provides water quality information to identify activities responsible for impairment, analyze water quality trends, and develop environmental indicators.

The State is divided geographically into major units for environmental sampling, analysis, and assessment with the goal of completing an initial survey of the State during the five year period of 2001-2005:



- P West Fork White River and Patoka River Basins in 2001;
- P East Fork White River and Whitewater River Basins in 2002;
- P Upper Wabash River Basin in 2003;
- P Lower Wabash River and Kankakee River Basins in 2004; and
- P Great Lakes and Ohio River Basins in 2005.

Data collected from field sampling is analyzed for physical, chemical, and biological factors. For example, specific physical properties of water sampled may indicate a decrease in quality or quantity of habitat in the event of an environmental stress. Specific chemical responses to stress may imply elevated concentrations in fish tissue and sediment. Specific ecosystem factors may result in impaired biological communities.

The Office of Water Management's (OWM) field sampling strategy is designed to describe the overall environmental quality of each basin and to identify impaired water bodies that do not meet water quality standards. Elements of the sampling program include: fixed station monitoring; sampling from statistically selected sites; fish community, fish tissue, and sediment contaminant sampling programs; pesticide monitoring; bacteriological (*E. coli*) sampling; macroinvertebrate sampling; site specific sampling in support of NPDES permitting program; and special projects such as trace metals, Total Maximum Daily Loads (TMDL) sampling, Wildcat Creek Pilot Project, and monitoring of the White River in Marion County.

College students from the Governor's Public Service Internship Program are used each summer to assist the Assessment Branch in field sampling operations. Volunteer monitoring will be employed to supplement existing IDEM staff whenever applicable.

The water quality data will be collected, analyzed, and assessed with information published in multiple formats to be used by a variety of customers. OWM's internal program support activities include: 305 (b) Water Quality Report; 303 (d) Impaired Water Bodies List; TMDL determinations; and NPDES permits. External uses of monitoring data and information include: the annual Fish Consumption Advisory; the IDEM-U.S. EPA Environmental Performance Partnership Agreement; Northwest Indiana Remedial Action Plan; and the Wildcat Creek Watershed Pilot Project. Access to collected data and information will be provided to the public upon request and via the Internet.

## Program Participants

This program is operated through the efforts of the OWM Assessment Branch with collaboration with the staff from the Watershed Planning Section (formerly known as the Nonpoint Source Section) and the Permitting Branch. The Fish Consumption Advisory is produced in conjunction with the Indiana Department of Health and the Indiana Department of Natural Resources.

## Program Description

Media:	Surface Water: rivers, streams and lakes
Study Area:	Statewide
Site Selection Type:	See fact sheets listed in Program Products section
Sampling Sites:	See fact sheets listed in Program Products section
Sampling Frequency:	See fact sheets listed in Program Products section
Data Collected:	See fact sheets listed in Program Products section

## Program Product(s)

- ▶ Report: *Surface Water Quality Monitoring Strategy* - revised, IDEM 32/01/013/1998 rev. 2001
- ▶ Fact Sheet: *Assessment Branch*, IDEM 32/01/014/1998 rev. 2001

### **Biological Studies Section**

- ▶ Fact Sheet: *Biological Studies Section*, IDEM 32/01/006/1998 rev. 2001
- ▶ Fact Sheet: *Fish Community Sampling Program*, IDEM 32/01/004/1998 rev. 2001
- ▶ Fact Sheet: *Fish Tissue Contaminant Monitoring Program*, IDEM 32/01/005/1998 rev 2001
- ▶ Fact Sheet: *Macroinvertebrate Community Assessment Program*, IDEM 32/01/007/1998 rev.2001
- ▶ Fact Sheet: *Sediment Contaminant Monitoring Program*, IDEM 32/01/008/1998 rev 2/2001
- ▶ Fact Sheet: *Lake Water Quality Assessment*, IDEM 32/01/009/1998 rev 2/2001

### **Environmental Toxicology and Chemistry Section**

- ▶ Fact Sheet: *Environmental Toxicology and Chemistry Section*, IDEM 32/01/003/1998 rev. 2001
- ▶ Fact Sheet: *TMDL Monitoring Program*, IDEM 32/01/018/1999 rev. 2001

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## Program Product(s) B continued

### Surveys Section

- ▶ Fact Sheet: *Watershed Monitoring Program*, IDEM 32/01/001/1998 rev. 2001
- ▶ Fact Sheet: *Pesticide Monitoring Program*, IDEM 32/01/002/1998 rev. 2001
- ▶ Fact Sheet: *Fixed Station Sampling Program*, IDEM 32/01/012/1998 rev. 2001
- ▶ Fact Sheet: *Surveys Section*, IDEM 32/01/015/1998 rev. 2001
- ▶ Fact Sheet: *Synoptic Sampling Program*, IDEM 32/01/017/1998 rev. 2001
- ▶ Fact Sheet: *E. coli Monitoring Program*, IDEM 32/01/019/1999 rev. 2001
- ▶ Fact Sheet: *Source Identification Program*, IDEM 032/01/02/2001
- ▶ Fact Sheet: *Trace Metals Project*, IDEM 032/01/022/2001

## Technical Notes

Please read the fact sheets listed in the Program Products section.

## Contact Information

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<b>IDEM Information:</b> (317) 233-1044 or 800-451-6027 800-743-3333(TDD) toll-free for Indiana residents  <b>EnviroLine:</b> (317) 232-8603 or 800-451-6027 toll-free for Indiana residents  <b>Fax on Demand:</b> 800-726-8000  <b>Internet:</b> <a href="http://www.state.in.us/idem">www.state.in.us/idem</a>	<b><u>For More Information on IDEM's Office of Quality...</u></b>  <b>Assessment Branch</b> (Surface water quality: river, streams and lakes) Shadeland Office, Indianapolis (317) 308-3173  <b>Permitting Branch</b> (NPDES permits) Indiana Government Center North, Indianapolis (317) 232-8675  <b>Compliance Branch</b> (facilities assistance, inspections and compliance) Indiana Government Center North, Indianapolis (317) 232-6770  <b>Drinking Water Branch</b> (Public water supply and ground water protection) Shadeland Office, Indianapolis (317) 308-3280  <b>Planning &amp; Restoration Branch</b> (Water quality standards/rules, grants and loans) Indiana Government Center North, Indianapolis (317) 233-8488
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